UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,209	04/23/2001	Jin Lu	US 010191	3948

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EXAMINER
BOCCIO, VINCENT F

ART UNIT	PAPER NUMBER
2165	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
	09/840,209	LU, JIN
Office Action Summary	Examiner	Art Unit	
	Vincent F. Boccio	2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Response of 3/19/07*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)   Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

The Group and/or Art Unit location of your application in
the PTO has changed. To aid in correlating any papers for this
application, all further correspondence regarding this
application should be directed to Group Art Unit 2165.

Response to Arguments

1.   Applicant's arguments filed on 3/19/07 against the amended
claims 1-20 have been fully considered but they are not
persuasive.

The examiner has reviewed all arguments and fails to find
any persuasive arguments.
The examiner incorporates by reference previous all
previous arguments, which address present arguments.

{A} In re page 7, Motorola fails to teach a controller that
"employs a first content parameter associated with a first …
data cast blocks with at least one subscriber specific
parameter, determination of matching, then storing … Motorola
lacks a system the employs a first content parameter" and   ^

"merely teaches comparing access controlled data blocks to
subscriber parameters."

In response with respect to Motorola, the examiner cites
page 6,

"The accumulated Data casting content is store in a Broadcast
Server", broadcasted in view of Fig. 5, being a local broadcast
facility.

Files are BRANDED and Scheduled for broadcast and
broadcasted by swapping Null packets out for data cast
blocks to receivers of users in the local area, page 9.

Injected/swapped, into the bandwidth of the NULL
Packets, utilizing un or non used bandwidth of the Null
packets of a broadcast signal, to perform this swapping as
previously states requires some sort of buffering or
Scheduling, buffering to be waiting for insertion by
swapping out Null packets page 10.

Branding is identification of content, which to do so is it deemed that it is required to be cached (first storage) to be analyzed (identified), to thereafter, branded or labeled, to identify the content therefore, scheduling by further storing to be associated with scheduling selecting data to be transmitted in an MPEG transport stream by removing Nulls and replacing with content data, as understood which ca be based on user information, preferences, profile, demographics or even responding to request and preferences of users (see User Profile and Interactive Viewing page 11).

Page 6, "The station can also seek out additional data through the Internet to augment its data cast to suit the **_needs of the community or various user demographics_**".

To suit the needs of the community, first deemed to require knowledge of the community or content parameters or identification, to compare with community or user demographics, even user profiles, as understood by the examiner.

Page 11-12, "… user's view history back to the TV station over the internet", therefore a means to receive profile data.

Page 13, the broadcasting system is referred to as "a local Television Station", reference page 5, Broadcast.

Page 6-7, Content Preparation and Scheduling, accumulated Data casting content is stored on a Broadcast Server. … Specific Data casting services with their own program identities can also be built up from the input data.

Page 7, Conditional Access, three types of casting is done with the system:

1) All Receive the same Data;
2) Multicasting where portions of the service **_are tailored to the interests of separate groups_** with the station's service area; and
3) Uni-casting where other aspects of the service are **_TARGETED to a specific user_**. All three types of network sessions are possible.

Based on Tailoring and Targeting, without some sort of comparison means to perform, is deemed would not be enabled to

do so without some sort of filtering based on content parameter
for the data and subscriber specific parameters.

{B} In re page 8, applicant states, "Dureau lacks a local
broadcast facility storing content parameters within a storage
medium as a result of comparing a first content parameter."

Dureau has been combined to teach on an alternative
rejection under 103, to provide a clear teaching of filtering
based on user information or profile:

"User Information such as profile data … uploaded to …
broadcast station for filtering downloads", thereafter can be
scheduled for broadcast based on Motorola to swap nulls for data
cast data, which Scheduling to Buffering is deemed inherent with
Motorola alone and further is deemed obvious in view of the
other art as applied by the examiner.

The issue that the examiner considers to provide for
storing content based on identification and comparison is based
on the idea that, when in the environment as shown in page 9,
swapping Null for content data, would require based on Branding
content meets the limitation of First Content Parameter and
scheduling by selecting data to target a user or to send data
based on a demographic, requires a comparison, wherein to swap
Nulls for content, the examiner deemed that since in accord to
page 3, the stream that which Nulls are replaced with content in
a stream that is at for example 6 MHz TV channel, the examiner
deems that the scheduling process causes the data to be queued
or to establish a schedule series of data to transmit, requires
the data to be scheduled and stored and ready when the
opportunity arises to inserted by swapping with Nulls, into the
TV broadcast signal being a 6 M Hz TV channel.

{C} In re page 9, applicant states, Dureau is non analogous
prior art and cannot be combined, no the same field of endeavor,
"Here, the smart toy of Dureau is not a local broadcast
facility".

In response the examiner fails to agree, Motorola
environment is a broadcast station sending cached, branded and
scheduled content, within a local TV broadcasting Station to
local receivers (Fig. 5).

Dureau, also is in the same environment Fig. 2 is a local
broadcast station to user's with a TV, in Fig. 1, also Fig. 4
and also see Figs. 5-6, also in accord to [0063], "User …
profile … uploaded … receiver station … or broadcasting station
for FILTERING, downloads or customized program content.

The examiner fails to understand the justification of the
statement that the references are not in the same or similar
field of endeavor, based on the above.

In response to applicant's argument that Dureau is
nonanalogous art, it has been held that a prior art reference
must either be in the field of applicant's endeavor or, if not,
then be reasonably pertinent to the particular problem with
which the applicant was concerned, in order to be relied upon as
a basis for rejection of the claimed invention. See *In re
Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992)..

In this case, Dureau has been applied in the alternative to
provide a clear alternative teaching of FILTERING AT A BROADCAST
STATOIN with data such as, "user information or profile", which
also requires the cached data files of Motorola to be Branded or
to generate content parameters to identify content to be
compared with user information or profile to FILTER content to
send, which is a form of TARGETING users, based on known
information provided to select/filter and thereafter Schedule to
store for broadcast, as Motorola does, alone.

Dureau does provide for filtering data based on profiles to
provide end users with data based on the users themselves,
therefore, the examiner does believe that the are at least
related and are in the same field of endeavor.
{D} In re page 10, applicant states, "Ullman also fails to teach
or disclose the storage of content parameter following a
determination of a match between the content parameters and at
least one subscriber parameter."
Ullman has been combined in an alternative rejection to
show that a automatic means made by a ALGORITHM (such as a
filter) residing on a server, allows for users data casts which
are uniquely relevant to the interests, history or behavior.

{E} In re pages 11-12, applicant argues Harriman, which is
pertinent to an alternative rejection under 103, which in the
process of: caching data files and branding data files (generate
Identification for the files) and scheduling for broadcast in

the environment of pages 5, 6 and especially Fig. 9, is deemed
obvious to load the queues at the scheduling point (all, group
and individuals), Motorola, based on the Motorola alone or
obvious in view of Harriman.
{F} In re page applicant states, "Harriman merely teaches the
storage of copies of multicasting and uni-casting that are
priority based and does not teach subgroups of storage devices
or data."

In response the examiner fails to agree, as previously
pointed out and not addressed by applicant, the examiner cites
again, Harriman col. 4, lines 47-49,

"If the cell does not require multicast replication, it is
passed to an appropriate one of the uni-cast output queues 130",
based on the passage above the examiner fails to agree.

"Harriman does teach duplication, "IF REQUIRED" and the
storage of copies of multi-cast and uni-casting that are
priority based, wherein the plurality of queues, read on
subgroups of storage devices or data."

In conclusion it is deemed obvious that based on the
combination, at the time of Scheduling, which is after caching
(first storage, not in queues) and branding (identification of
content), thereafter scheduling the data to be inserted into the
TV signal by removing NULL and replacing with data cast files,
is obvious to queue content based on a user profile and store in
the queues upon this scheduling determination, as is obvious to
the examiner and those skilled in the art, as is deemed obvious
in view of the art as applied and understood.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which
forms the basis for all obviousness rejections set forth in this
Office action:

> (a) A patent may not be obtained though the invention is not identically
> disclosed or described as set forth in section 102 of this title, if the
> differences between the subject matter sought to be patented and the prior
> art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the
> art to which said subject matter pertains. Patentability shall not be
> negatived by the manner in which the invention was made.

3.   Claims 1-20 are rejected under 35 U.S.C. 103(a) as being
unpatentable over **Motorola "Integrated Data-casting Solutions
for Digital TV (6/1999)** or, in the alternative, under 35
U.S.C. 103(a), as obvious over Dureau (US 2005/0111823 A1) in
view of Ullman et al. (US 20040236865 A1).

Regarding claim 1, Motorola PUB. discloses and meets the limitations associated with a data apparatus comprising:

- a storage medium for storing selected portions of transmitted data cast streams (page 6, "Data Assimilation", cached, content storage and local branding;

- a controller receiving within the local facility receiving a first data cast (pages 6-7, "Input files, Broadcast Server, Scheduling, Content Preparation/Editing", "A vast array of data may be brought in from a variety of media, terrestrial media can be deliver IP data to the station"),

- wherein the controller determines based on branding and user profiles and performs targeting with a processor or controller is based on a user profile (page 5, "USER Profile").

Users can be grouped, sub-grouped even uni-cast, based on (page 7, "multicasting to demographic groups and user profiles", therefore, groups and even sub-groups), and uni-casting by targeting a specific PC users, based on user profiles and demographic, wherein all three types of network session are possible in the same service, the filtering is accomplished according to page 11-12, "user's view history back to the TV station over the internet to the local station, wherein system targets either groups, sub-groups even specific users, based on demographic and user profiles.

On the alternative the examiner cites **_Dureau teaches at page 7, [0063], "User information such as profile data may also be uploaded to the receiver station or the broadcast station for filtering downloads or customizing program content which is displayed on the television.", as taught by Dureau._**

Therefore, it would have been obvious to those skilled in the art to modify Motorola integrated data casting solutions by uploading user profiles to the local station and to select or filter contents received from various sources, with the profile and a controller to performing targeting by selecting content

based on profiles, to either queue or store the selected blocks
to perform group or uni-casting to better target the community,
based on the decided needs of the community.

The examiner renders inherent to store blocks based on a
user specific ID or profile, when targeting or even group
casting, associated with branding (providing identifying
markings to distinguish content, to thereafter filtering by
selecting data cast files, based on branding) and selecting from
the caches content and scheduling, prior to transmission, to
storage, such as transmission queues prior to transmission of
multi-casting data, uni-casting data and group casting data in
one system, in view of pages 5-12, that based on page 9 to be
operable the examiner renders the buffering or queues a required
feature to perform the operation of the downstream data inserter
to be operable, the examiner believes that the system would not
be operable without buffering or queues for transmission content
to be injected or inserted into an MPEG transport stream by
opportunistic-ly injected, the data where null packets
previously existed in the MPEG stream (page 10).
On the alternative the examiner takes official notice that
providing queues or placeholders for data-casting, or an order
of transmission, operating as such as a FIFO or other type
ordering (additional priority considerations), is well known in
the art, therefore, it would have been obvious to one skilled in
the art at the time of the invention to utilize transmission
queues or placeholders in memory, or queue locations or a
sequence or an order, for transmitting the multicast data-cast,
and a subgroup data-cast such as based on demographic data and a
uni-cast queue, to one and to utilize a plurality transmission
queues to order the transmission, as would have been obvious to
and is well known to those skilled in the art.
To support the official notice taken, the examiner had
provided multiple references, see final office action, that
teach queues for the transmission types, uni-casting, group
casting, operations.

Regarding claims 2-8, the combination with Motorola further
meets the limitations of wherein the system comprises a
plurality of end user apparatuses (page 7, "multicasting to
demographic groups", which also meets the limitation of wherein
the group is met by all, and/or at least one subgroup associated
with all, met by demographic groups/groups) and further to
multicast to a group or subgroup requires an address unique to
the demographic and uni-casting or only by one, wherein uni-

casting is targeting which requires a unique address associated
with one end user, also page 7, as disclosed.

Claims 9-16 represent the corresponding method claims,
associated with the apparatus claims above, are analyzed and
discussed with respect to the claims 1-8 above.

It is noted that the claims have been amended to include,
"a transmission device within the local broadcast facility
configured to transmit the first data cast in accordance with
the first content parameter", met by the combination as applied
wherein branding identified the content, preferences are used to
select or filter from the available content, cached to the local
broadcasting station to be scheduled and stored in queues
waiting for an opportunistic null packet removal and data
insertion, deemed required to have buffer or queued and
thereafter, transmission (page 5, see Broadcast Antenna, "DTV
TRANSMITTER"), of the transport stream (Figs., of page 9, 10)
with data packets inserted opportunistically, by removing null
packets.

Regarding claims 17-18, Motorola discloses and meets the
limitations associated with a TV broadcasting system capable of
transmitting data-cast streams to a plurality of storage
apparatuses (page 5 and/or page 6 and/or page 7 and/or pages 8-
9), the TV broadcasting system comprising:
  a data retrieval and a memory (page 6, memory met by
  "cached", "content is cached on a server where it can be
  scheduled for broadcast"), controller capable of accessing a
  plurality of data sources (page 6, sources met by a source of
  NEWS, Finance, Sports and Technology into the "INTERNET
  CLOUD", and other sources, to HUB, "TV station to lunch a
  sustaining data-cast service … the station can also seek out
  additional data through the Internet to augment its data-
  casts") and retrieving from each of the sources WEB page data
  (page 6, "Internet", "search the WEB") and wherein the content
  can be internet content or Web pages, page 4.

Motorola discloses caching prior to broadcasting and meets all
the limitations such as groups multicast and subgroups multicast
using demographics and even uni-casting

but, fails to particularly disclose or specifically mention,
wherein the memory for storing the retrieved WEB page data in

  a plurality of transmission QUEUES,

   first queues for all apparatuses (multi-casting);

   second queues multicast only by selected subgroups of the
plurality of storage apparatuses (demographic multi-casting).

   The examiner renders inherent to provide transmission
queues for multi-casting, uni-casting and group casting in view
of pages 5-12, that based on page 9 to be operable the examiner
renders the buffering or queues a required feature to perform
the operation of the downstream data inserter to be operable,
the examiner believes that the system would not be operable
without buffering or queues for transmission content to be
injected or inserted into an MPEG transport stream by
opportunistic-ly injected, the data where null packets
previously existed in the MPEG stream (page 10).

   The examiner takes official notice that providing queues or
placeholders for data-casting, or an order of transmission,
operating as such as a FIFO or other type ordering (additional
priority considerations), is well known in the art, therefore,
it would have been obvious to one skilled in the art at the time
of the invention to utilize transmission queues or placeholders
in memory, or queue locations or a sequence or an order, for
transmitting the multicast data-cast, and a subgroup data-cast
such as based on demographic data and a uni-cast queue, to one
and to utilize a plurality transmission queues to order the
transmission, as would have been obvious to and is well known to
those skilled in the art.

   To support the official notice the examiner had provided
multiple references (such as Harriman, 5,898,687), reference
previous actions.

   Regarding claim 19, the combination as applied with
Motorola further meets the limitation of wherein the
transmission controller based on the combination applied
provides for a plurality of queues for the first, second and
third transmissions, being multicasting, group or even sub-group
multicasting and uni-cast transmission ordering and further
Motorola, further discloses wherein according to page 7, the
data-casts can have transmitted at predetermined times of the
day (page 7, met by assigning start times, also see "files in
the user's PC can be undated at predetermined times to keep
their contents accurate"), therefore, meeting the limitation at
predetermined times of the day.

Regarding claim 20, the combination provides for uni-casting, therefore, to uni-cast the unique ID is an inherent feature to send something specifically to one apparatus or user's PC that is targeted.

Regarding claims 1-, 9-, 17-, it is deemed that Motorola provides for the system that can receive, cache, brand and schedule transmission of content in uni-casting, multicasting and broadcasting data casting methods, inserting by replacing NULL packets in a transport stream and performing buffering.

An alternative rejection under 103, based on the arguments presented, as implied in combination the prior art **fails to clearly teach a controller which automates the process of determining content to send based in a user profile against a (content parameter) and buffering or storing the content on a medium prior to transmission.**

It is deemed inherent once content has been judged (branded and compared to user profiles), to store in a buffer or store to uni-cast or multicasting queues, based on the comparison and to replacement of null packets of an active stream going by (page 9, Motorola).

Ullman et al. teaches to accomplish personalization of service, with a stored user profile … automatic choices can be made by an algorithm (such as a FILTER) residing on the service … thereby links to content which is content in itself can be directed and relevant to users interests, demographics, history or behavior in the system (0041-0042 etc…), as taught by Ullman.

Therefore, it would have been obvious to one skilled in the art at the time of the invention to provide for an automatic means or an algorithm as taught by Ullman to use the user profiles available (to target uni-casting or multicasting) and compare or make choices by an algorithm (such as a filter) residing in the local broadcast facility to obtain a profile for users use an algorithm one the data cast data has been cached and branded, to the local broadcast station, to apply an algorithm or an automated means, to determine content to be stored or queued (scheduled), thereby making the decision to determine what data cast data to transmit automatic, as taught by Ullman.

Contact Information

Any inquiry concerning this communication or earlier communications should be directed to the examiner of record Vincent F. Boccio whose telephone number is (571) 272-7373.

The examiner can normally be reached on between Monday thru Friday between (7:30 am to 5:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on (571) 272-4146.

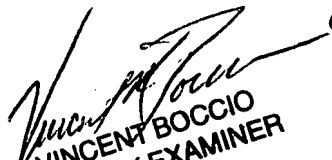The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Primary Examiner, Boccio, Vincent
5/23/07

VINCENT BOCCIO
PRIMARY EXAMINER